

FIG. 1

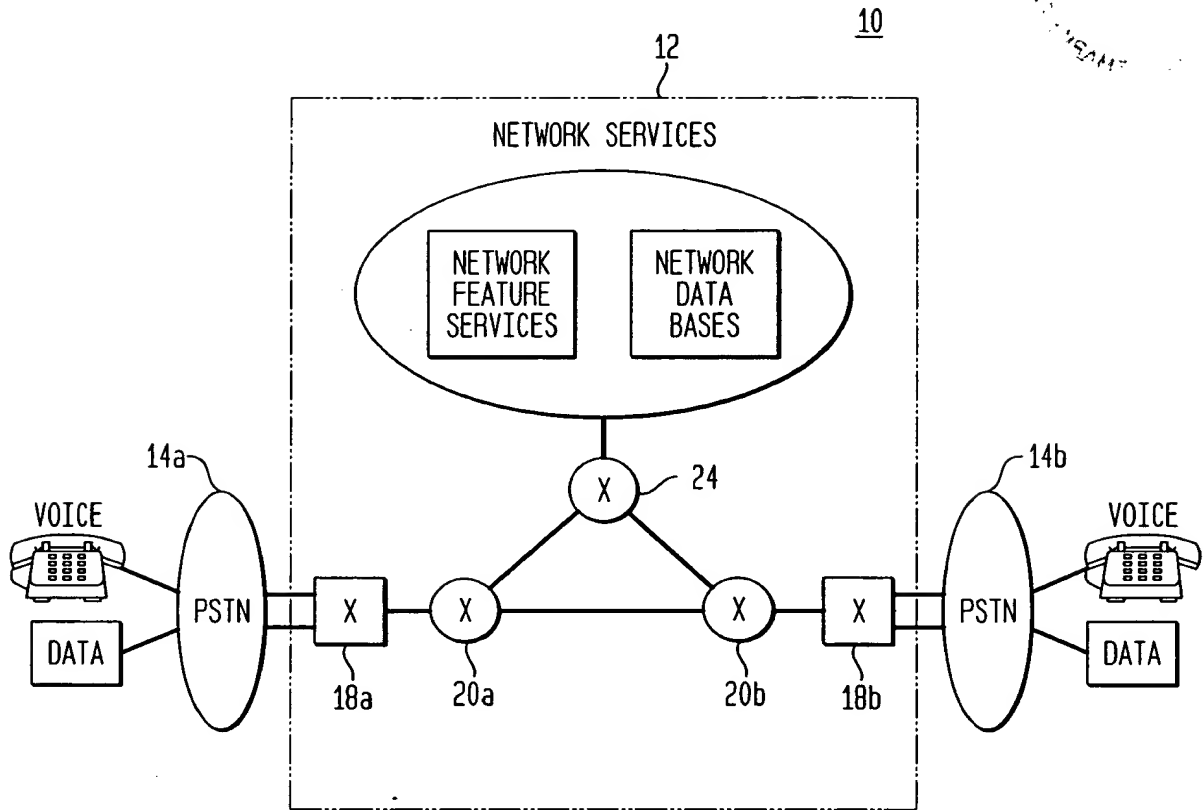


FIG. 2

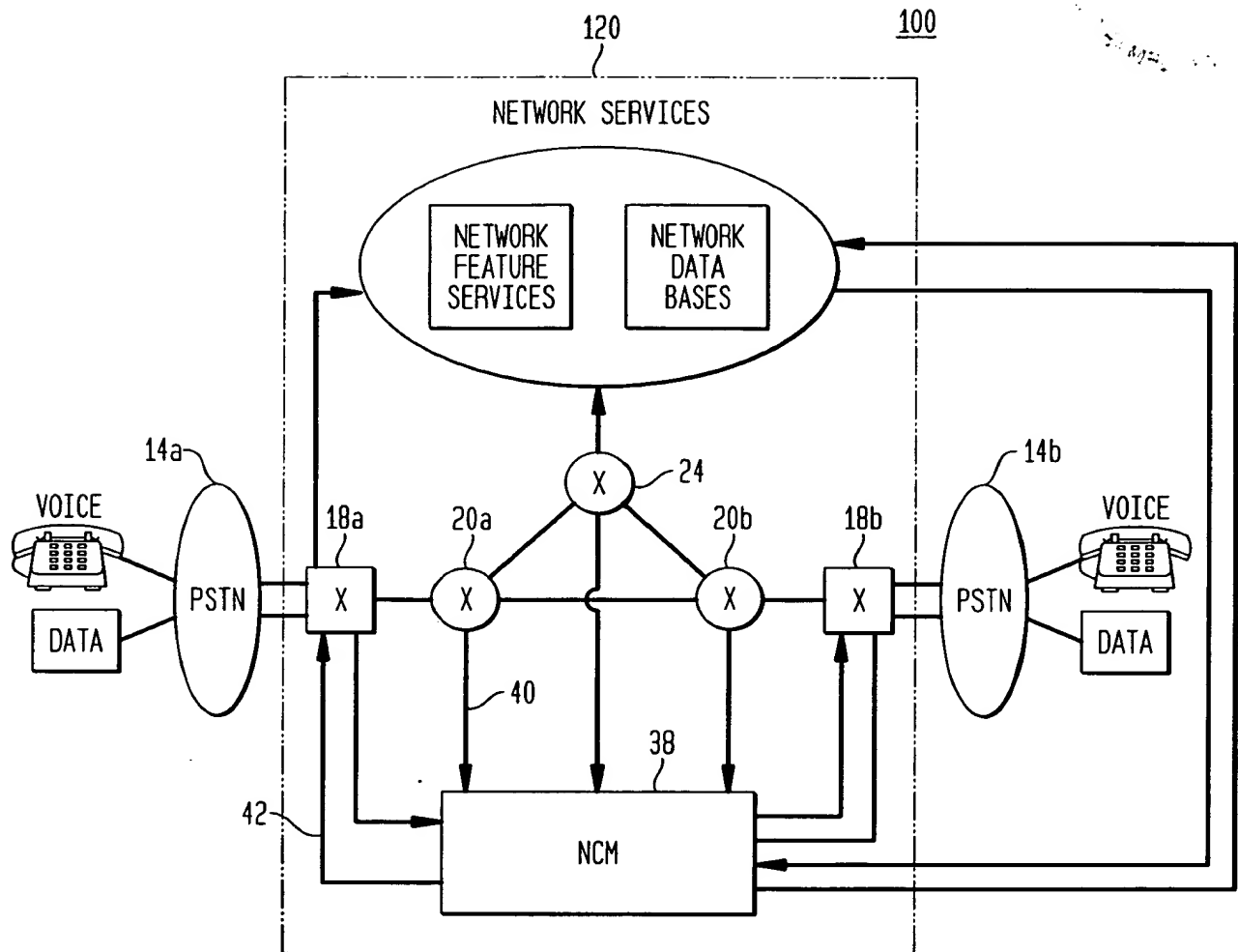


FIG. 3A

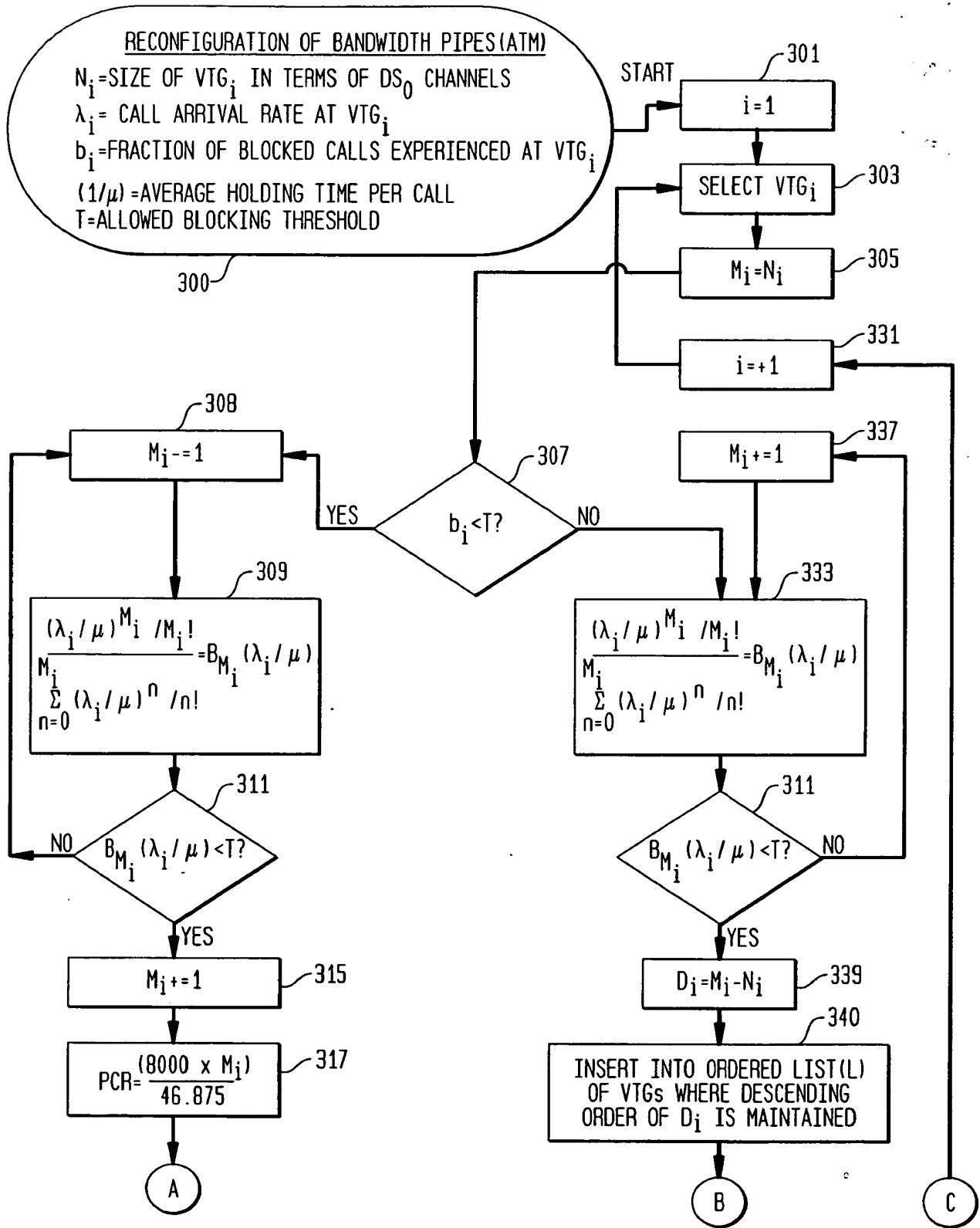
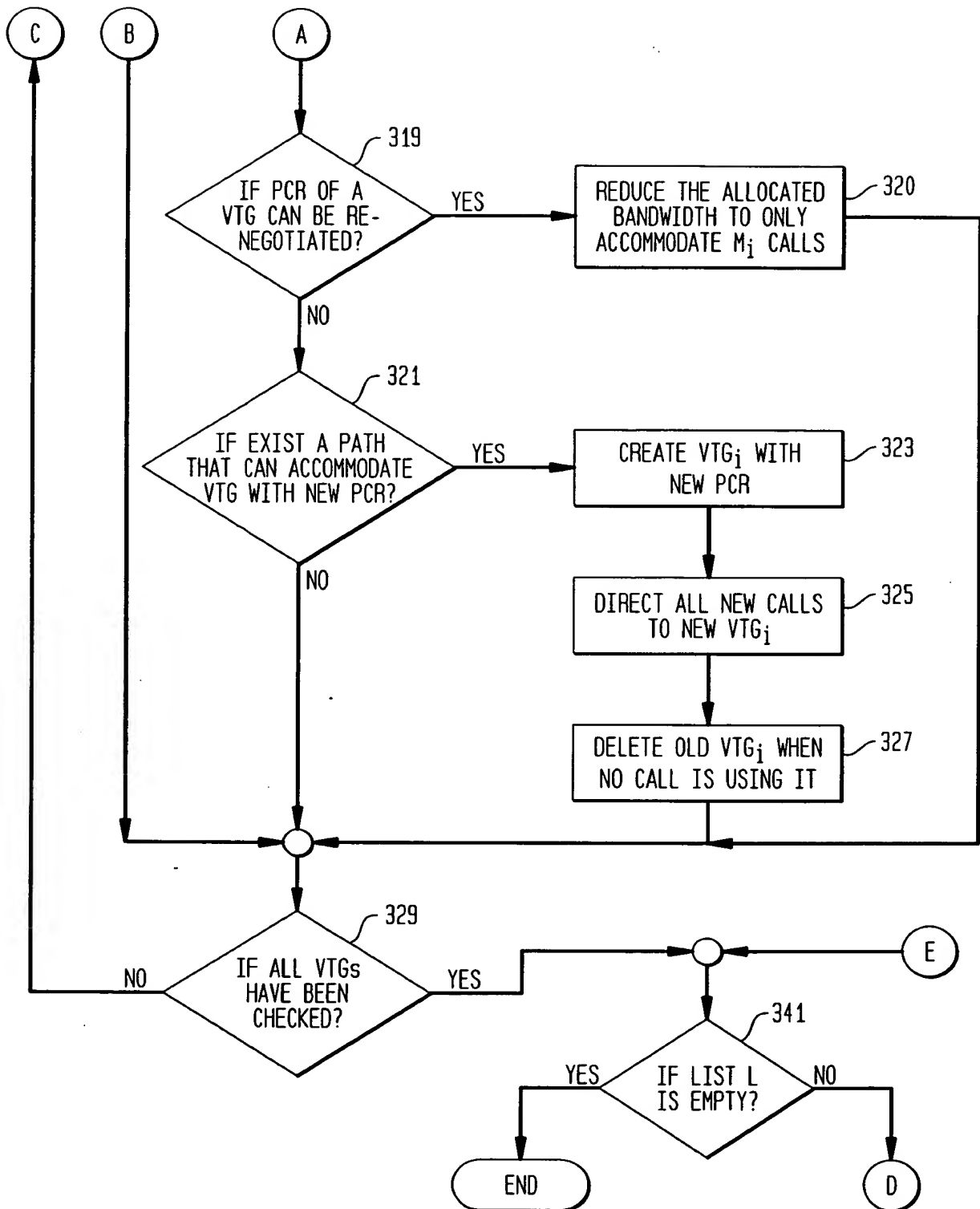
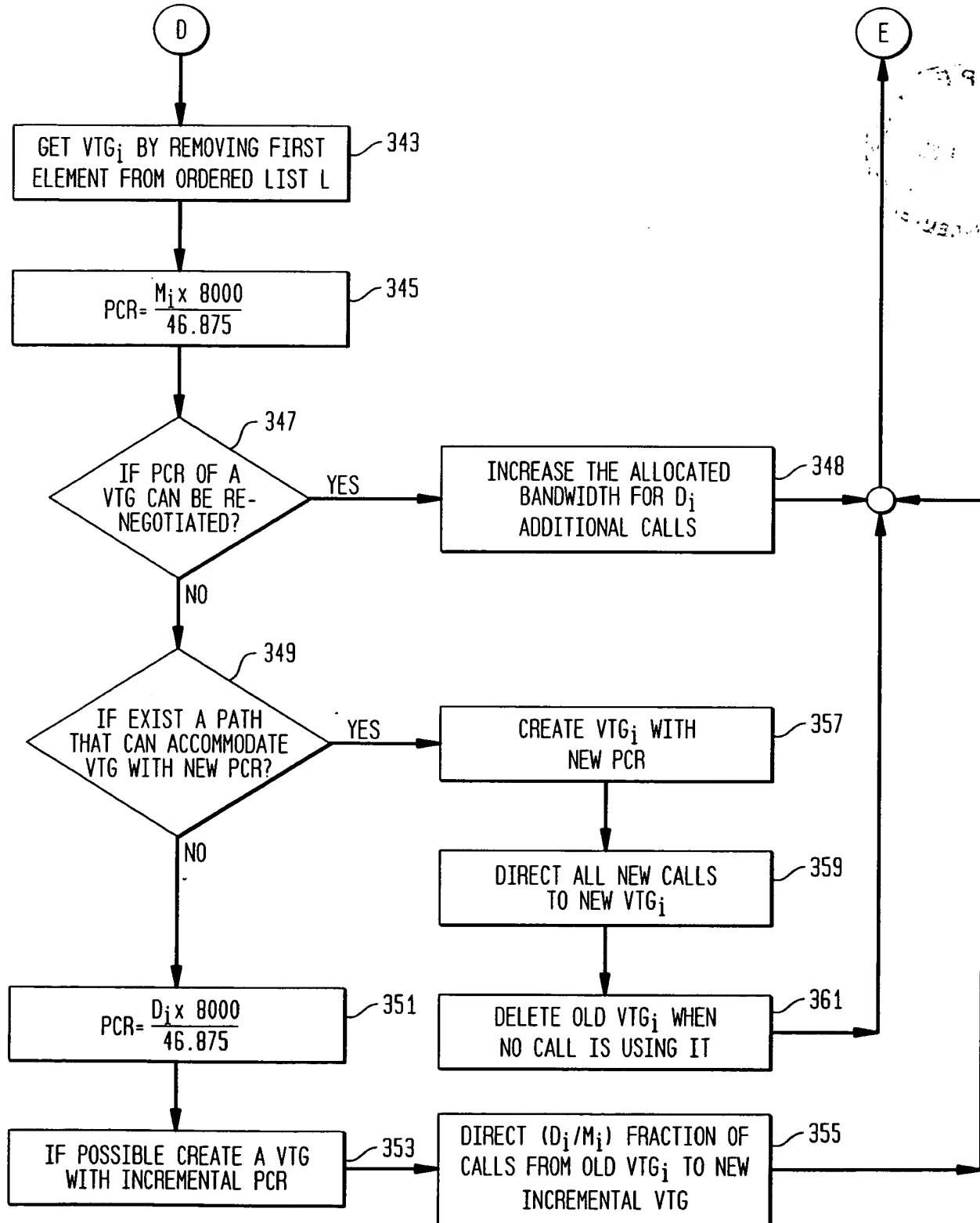


FIG. 3B



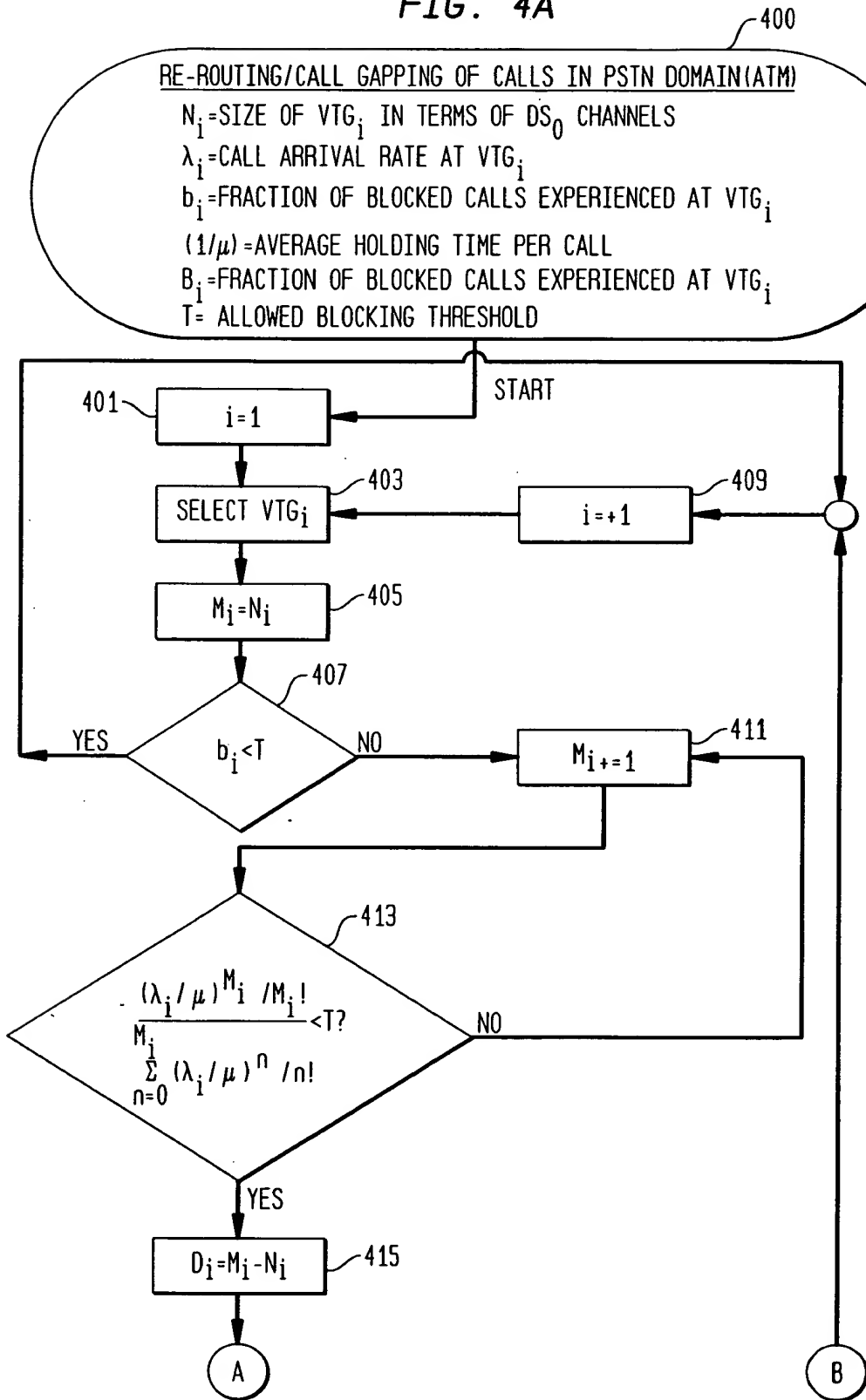
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FIG. 3C



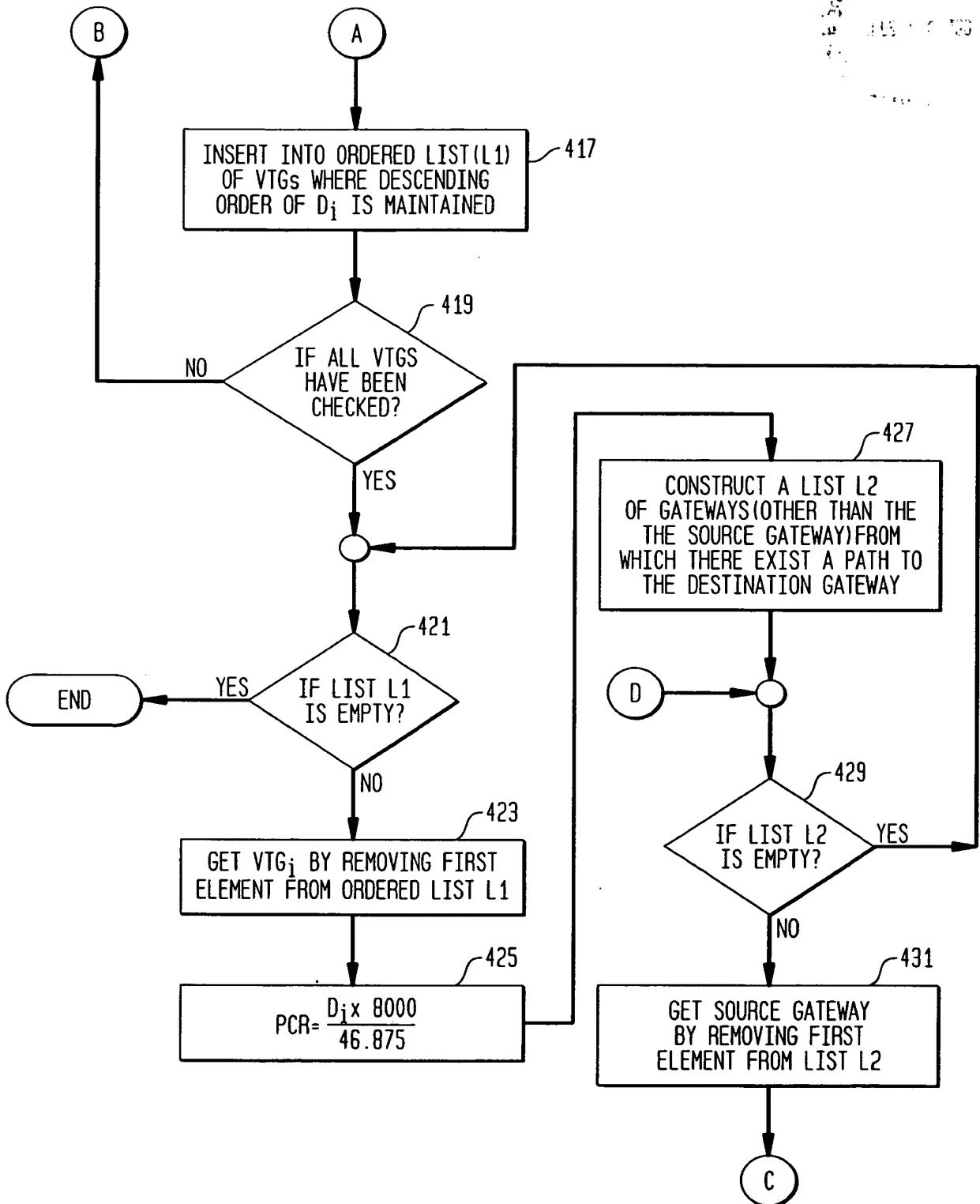
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FIG. 4A



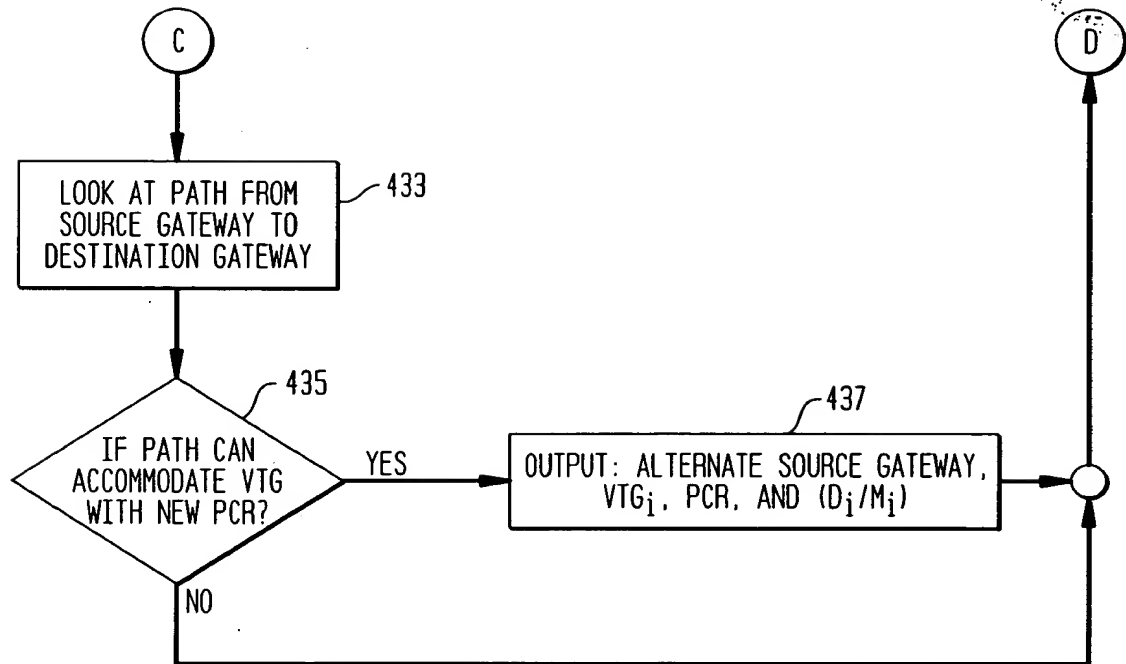
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FIG. 4B



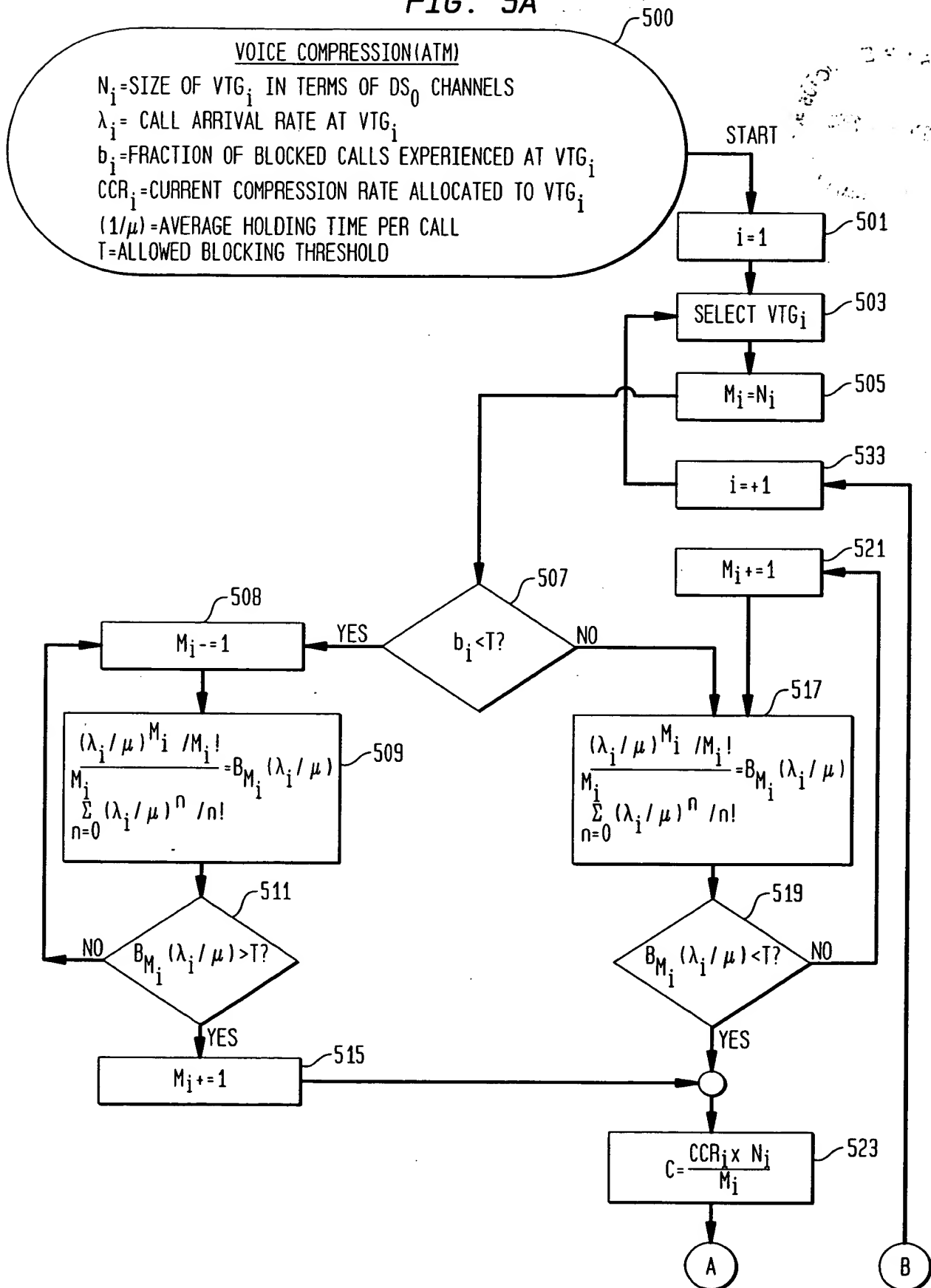
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FIG. 4C



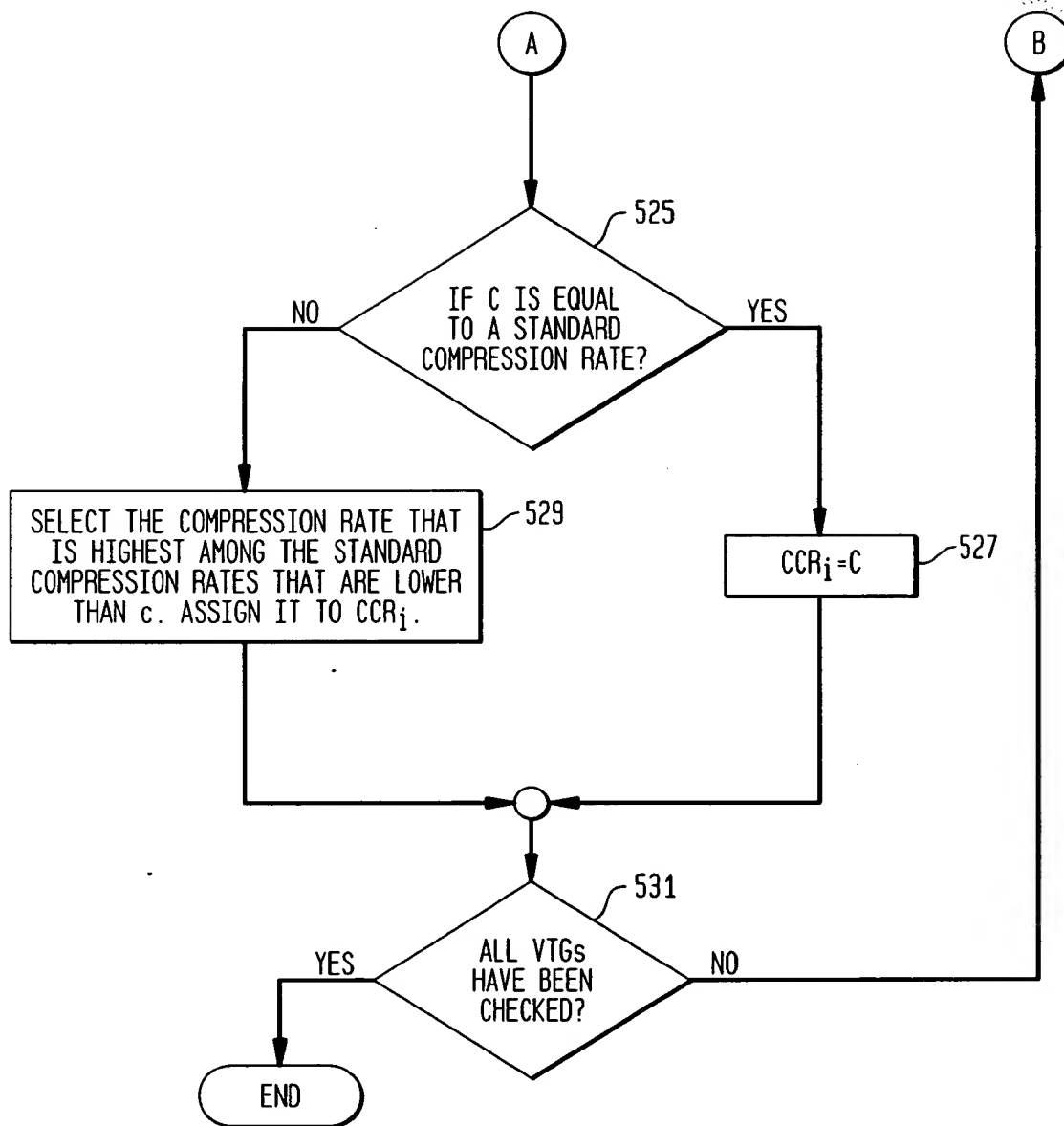
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FIG. 5A



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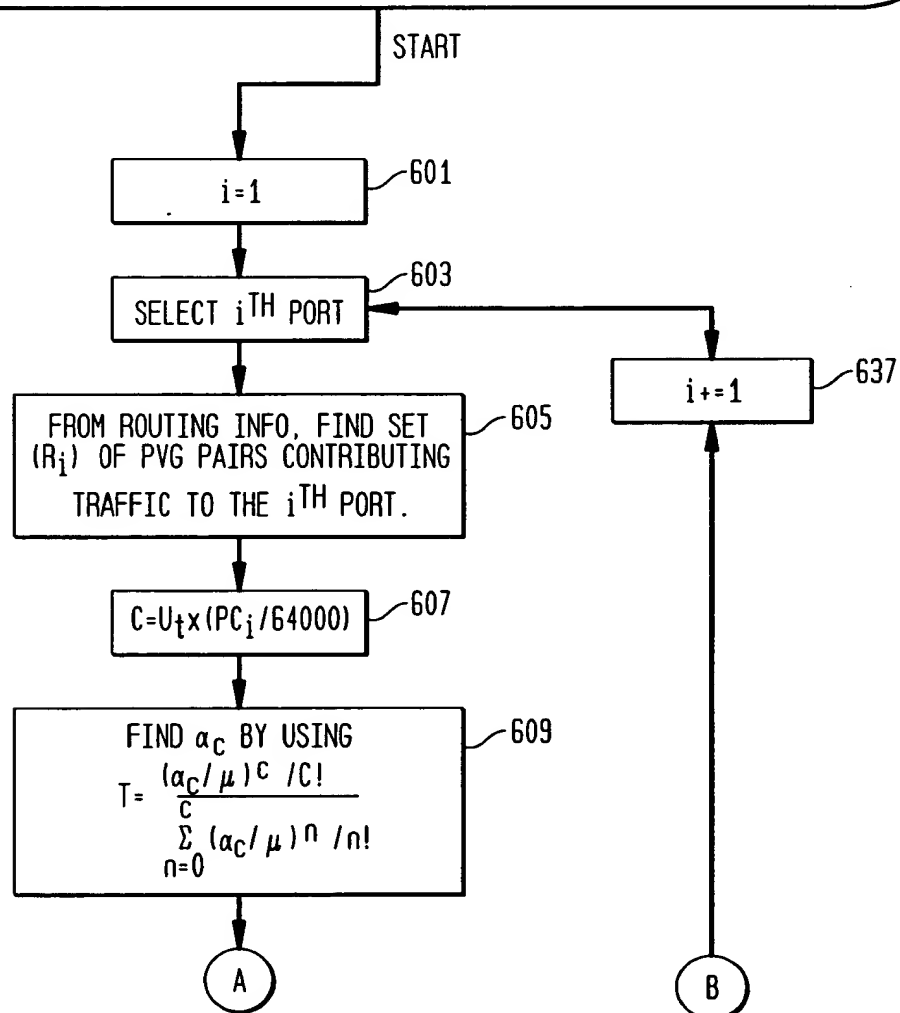
FIG. 5B



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FIG. 6A

CALL BLOCKING (UNAVAILABILITY OF RTP MEASUREMENTS)

 PU_i = UTILIZATION OF i^{th} PORT PC_i = CAPACITY OF i^{th} PORT U_t = UTILIZATION THRESHOLD λ_k = CALL ARRIVAL RATE FOR k^{th} PVG PAIR N_k = NUMBER OF CALLS FOR WHICH BANDWIDTH IS ALLOCATED TO k^{th} PVG PAIR ρ_{B_i} = BANDWIDTH REDUCTION CORRECTION FACTOR DUE TO THE i^{th} PORT ρ_{G_i} = BANDWIDTH INCREMENTAL CORRECTION FACTOR DUE TO THE i^{th} PORT f_k = BANDWIDTH REDUCTION CORRECTION FACTOR ASSIGNED TO THE k^{th} PVG PAIR e_k = BANDWIDTH INCREMENTAL CORRECTION FACTOR ASSIGNED TO THE k^{th} PVG PAIR B_k = ASSIGNED BLOCKING PROBABILITY TO THE k^{th} PVG PAIR $(1/\mu)$ = AVERAGE CALL HOLDING TIME T = BLOCKING THRESHOLD

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FIG. 6B

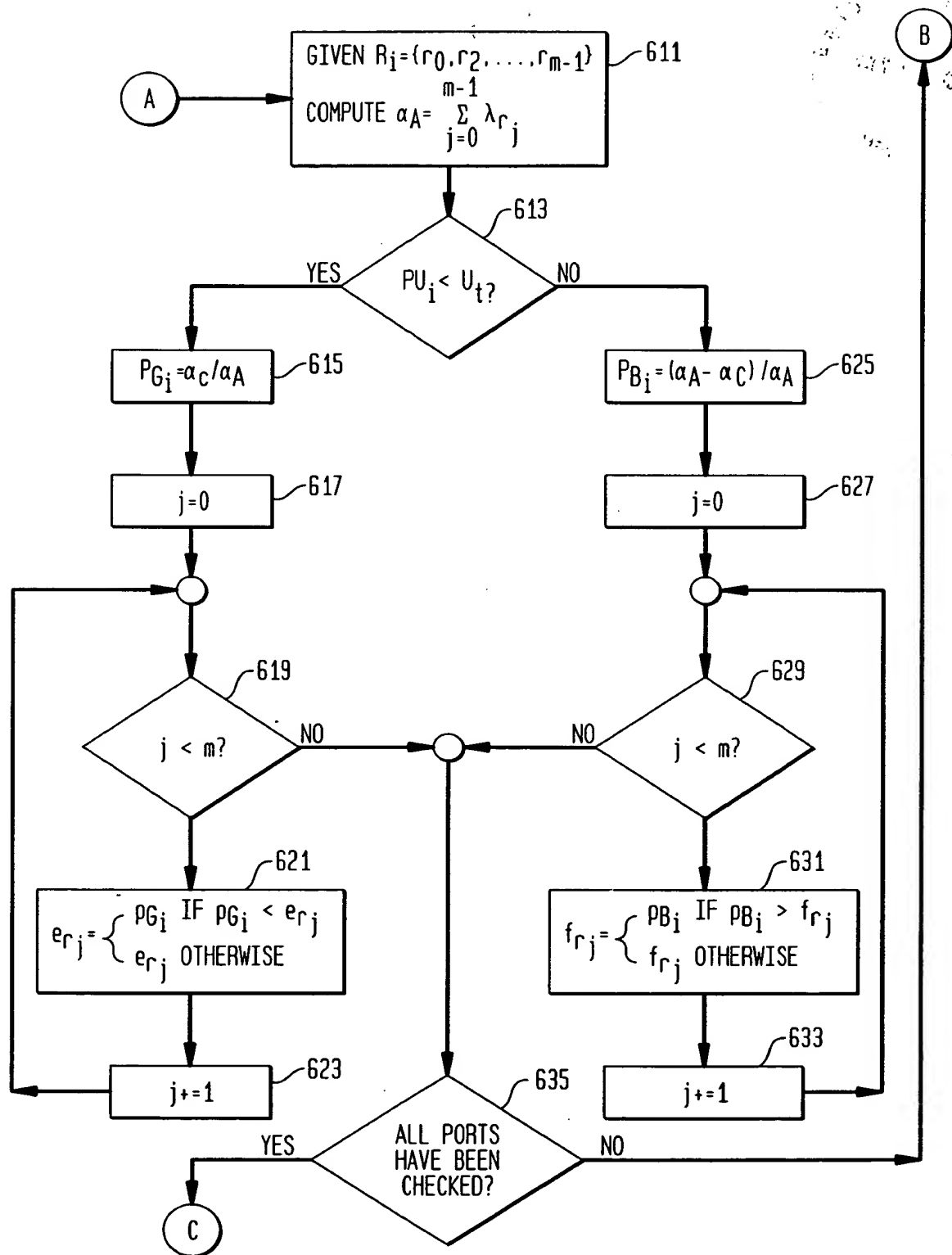
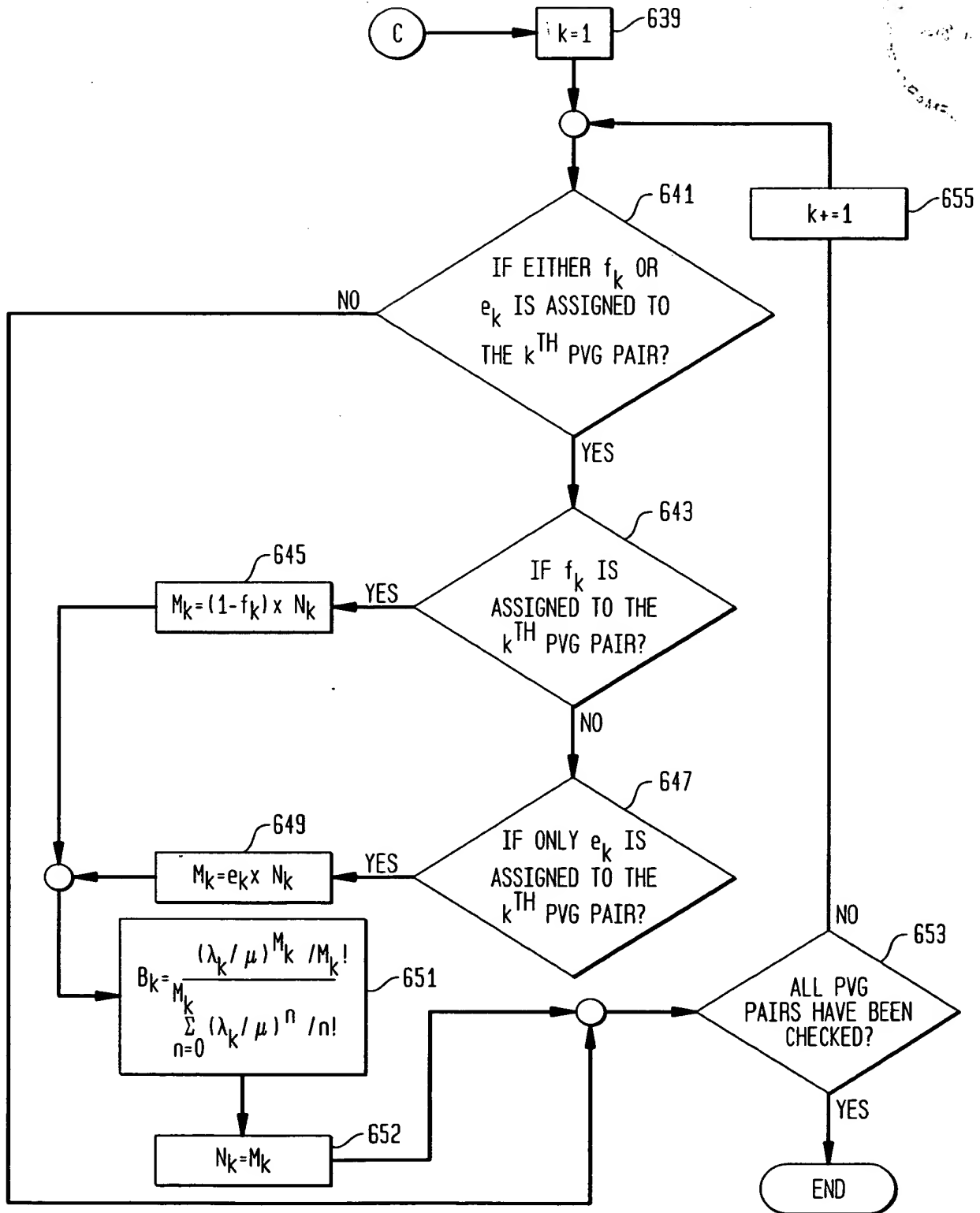


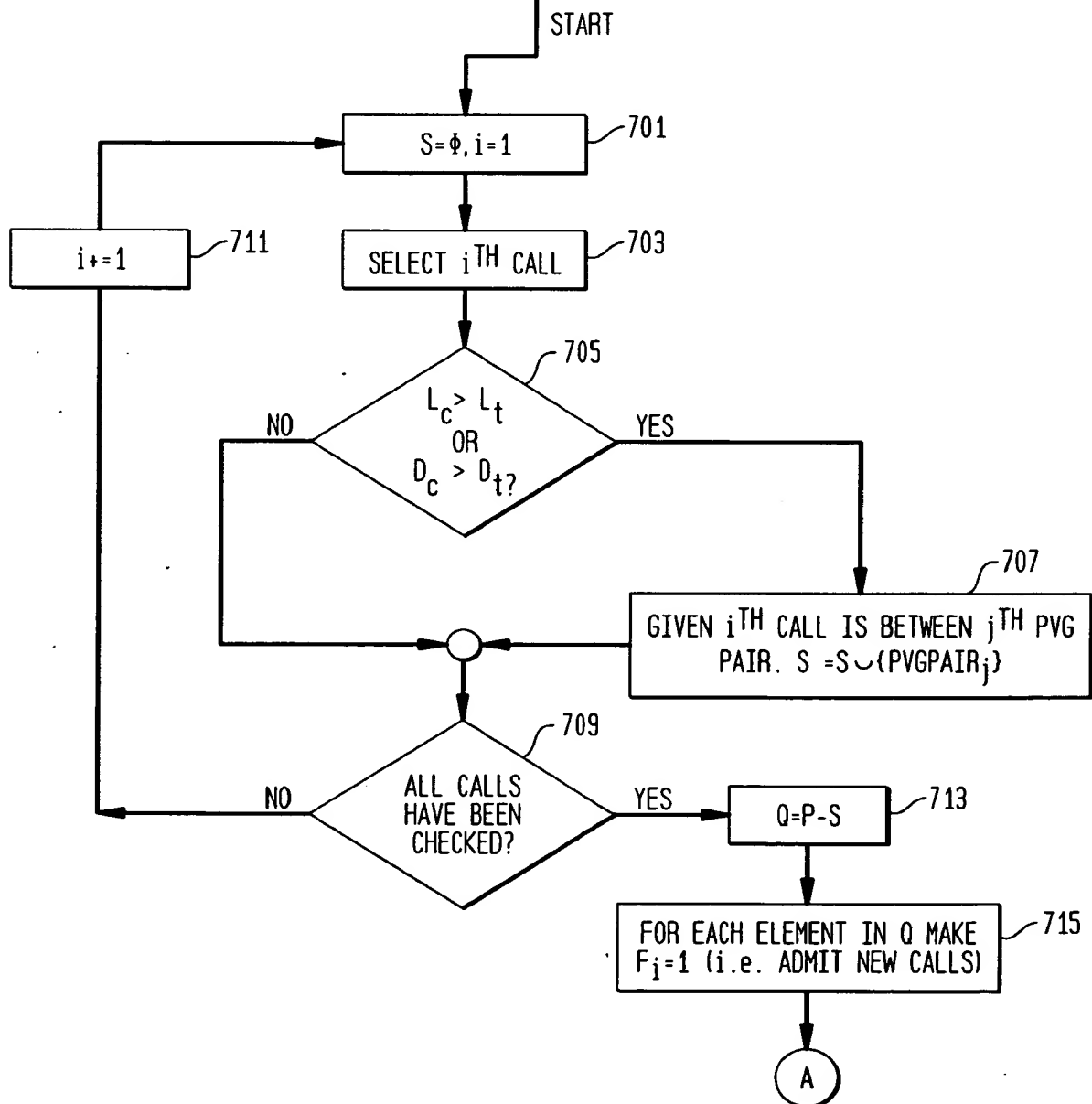
FIG. 6C



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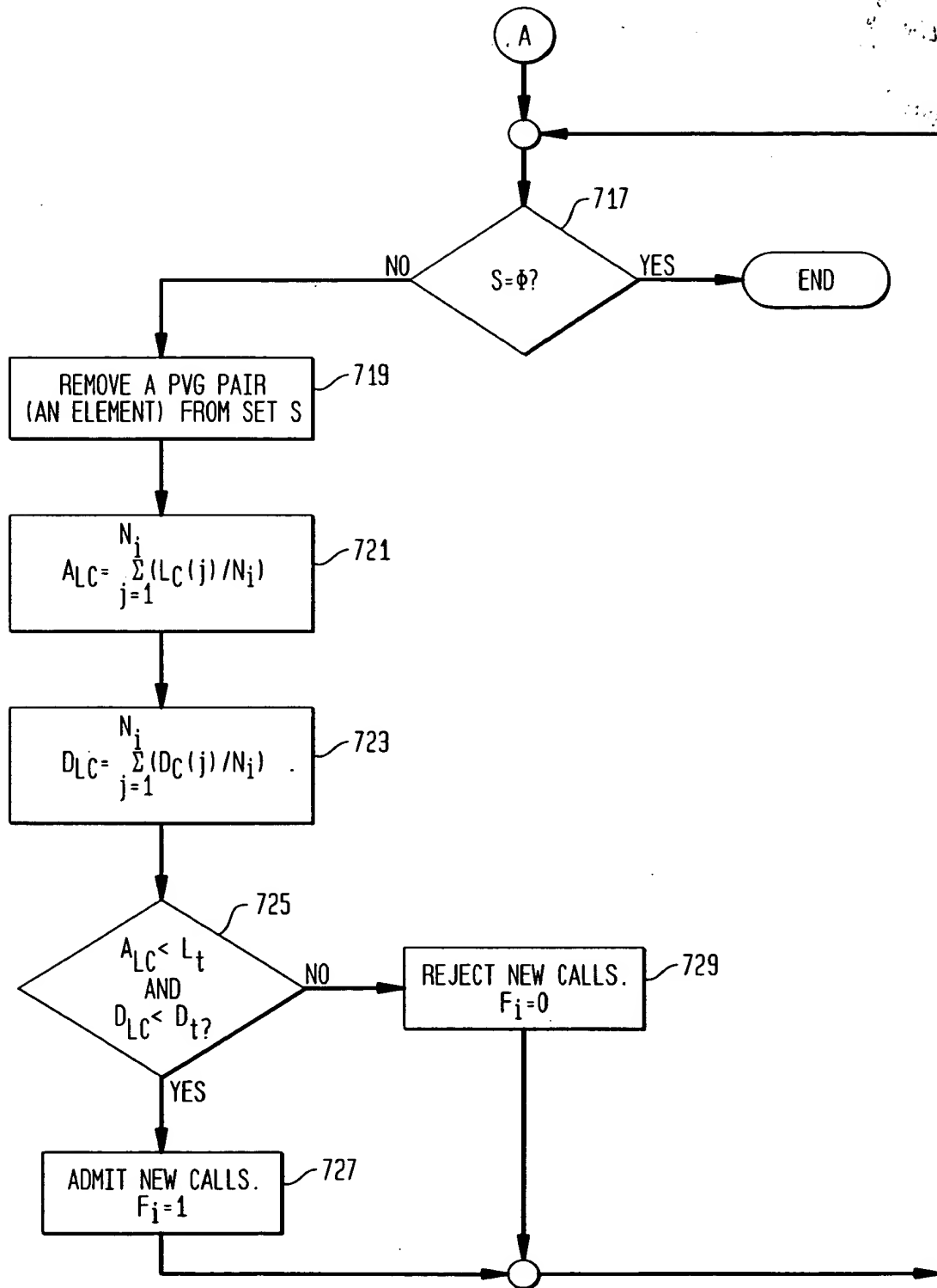
FIG. 7A

700

CALL BLOCKING(AVAILABILITY OF RTP MEASUREMENTS) L_c = FRACTION OF PACKET LOSS PER CALL L_t = PACKET LOSS THRESHOLD D_c = DELAY JITTER PER CALL D_t = DELAY JITTER THRESHOLD N_i = NUMBER OF ACTIVE CALLS IN i^{th} PVG PAIR $\text{PVGPAIR}_i = i^{\text{th}}$ PVG PAIR S = SET OF PVG PAIRS BETWEEN WHICH POOR PERFORMING CALLS EXIST P = SET OF ALL PVG PAIRS F_i = INDICATOR FLAG FOR PVGPAIR_i 

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FIG. 7B

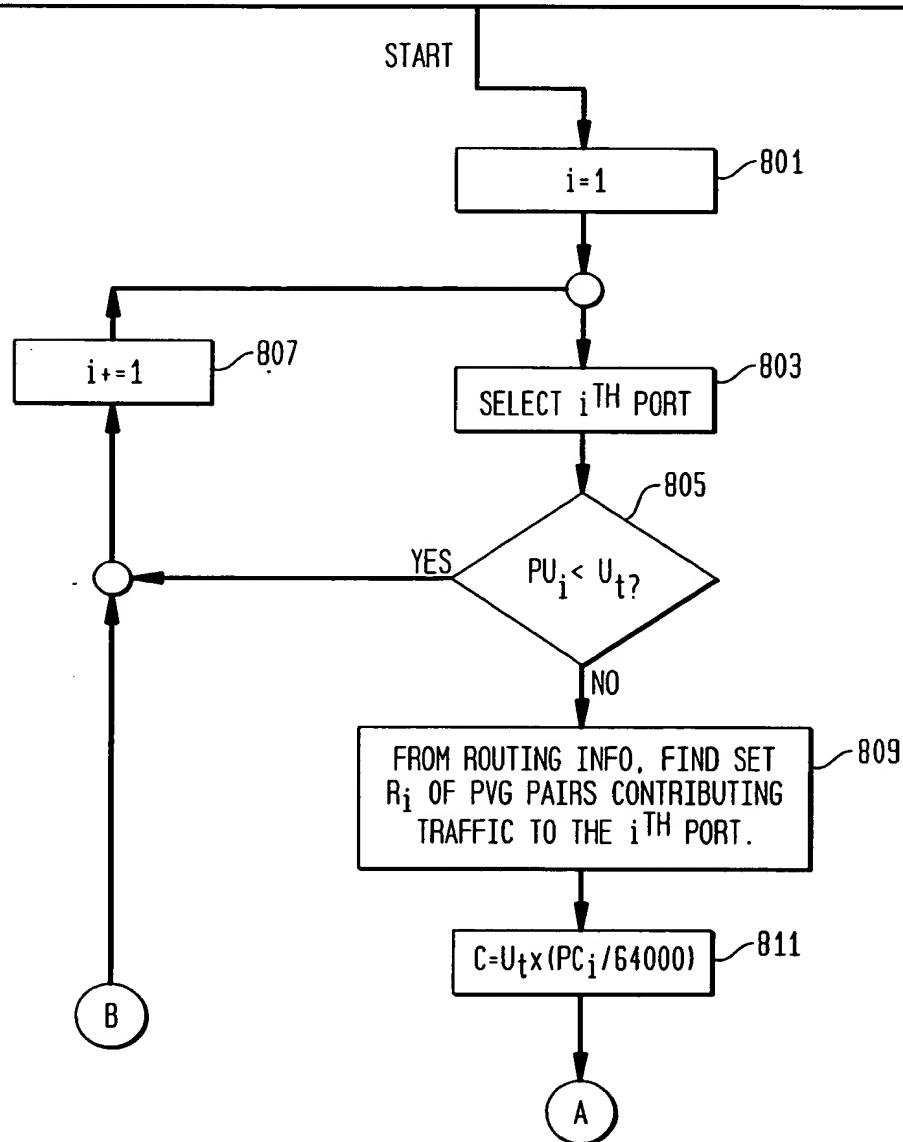


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FIG. 8A

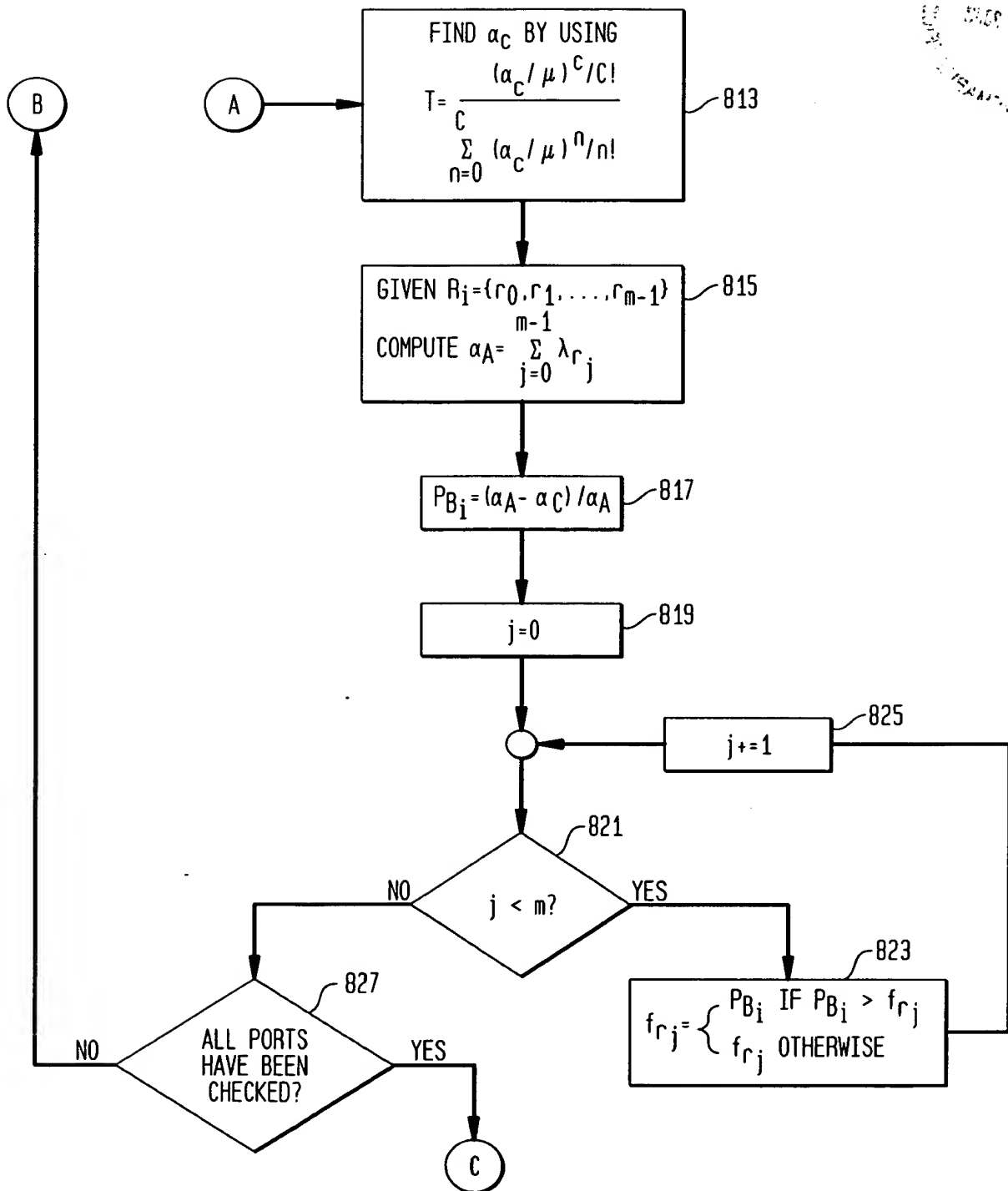
800

RE-ROUTING/CALL GAPPING(AVAILABILITY/UNAVAILABILITY OR RTP MEASUREMENTS)

 PU_i = UTILIZATION OF i^{th} PORT PC_i = CAPACITY OF i^{th} PORT U_t = UTILIZATION THRESHOLD λ_k = CALL ARRIVAL RATE FOR k^{th} PVG PAIR N_k = NUMBER OF CALLS FOR WHICH BANDWIDTH IS ALLOCATED TO k^{th} PVG PAIR $(1/\mu)$ = AVERAGE CALL HOLDING TIME p_{B_i} = BANDWIDTH CORRECTION FACTOR DUE TO i^{th} PORT f_k = BANDWIDTH CORRECTION FACTOR ASSIGNED TO THE k^{th} PVG PAIR T = BLOCKING THRESHOLD

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FIG. 8B



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FIG. 8C

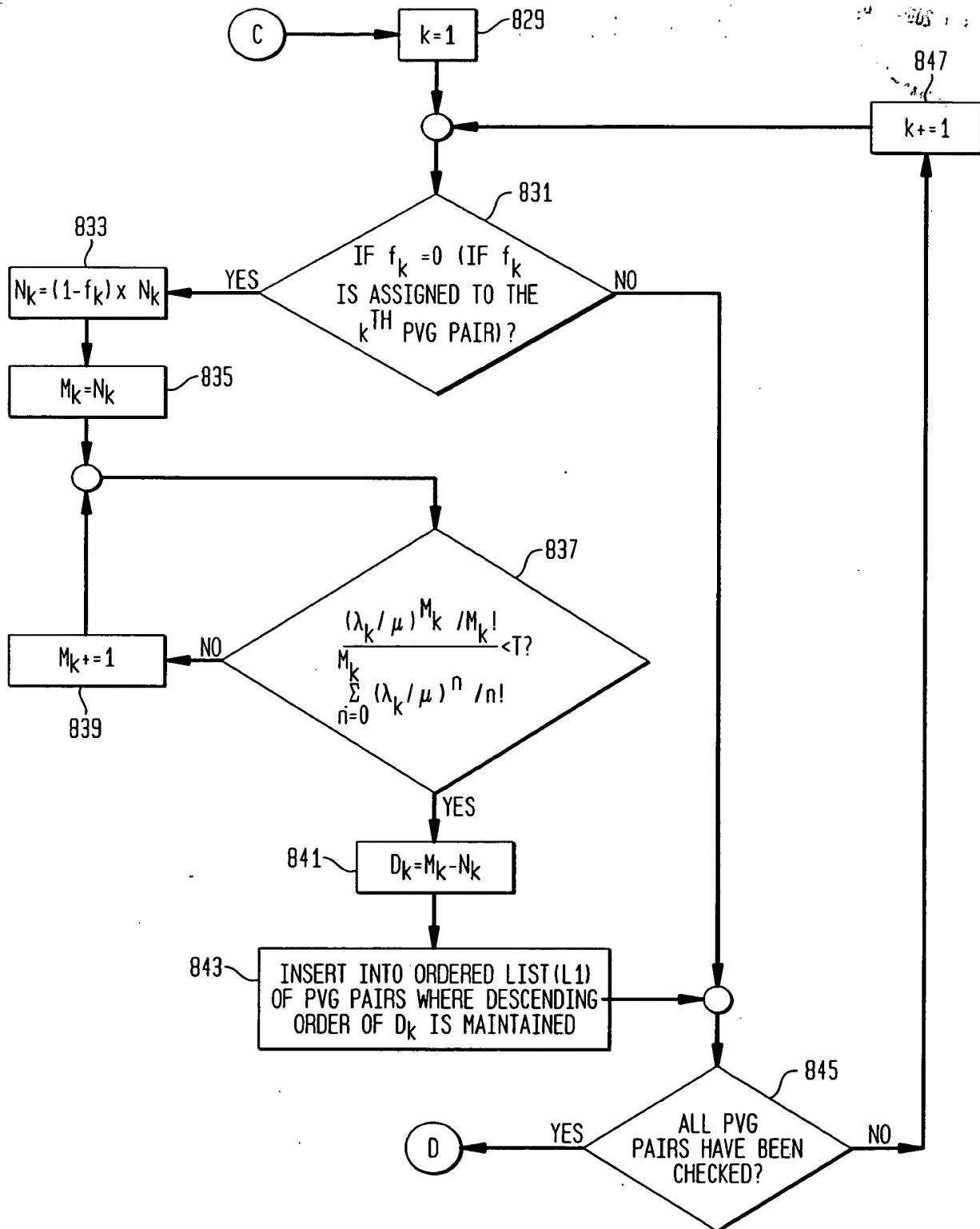
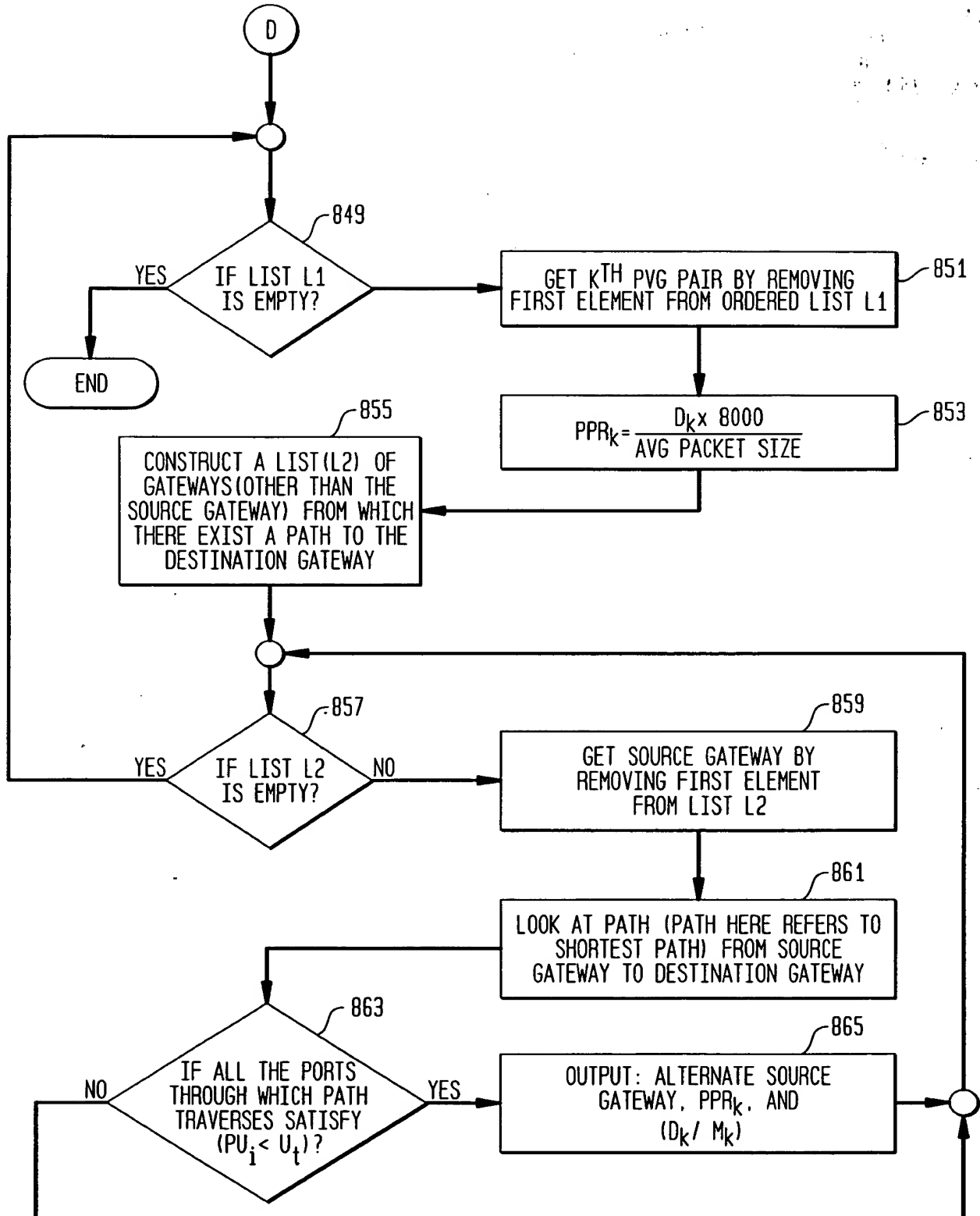


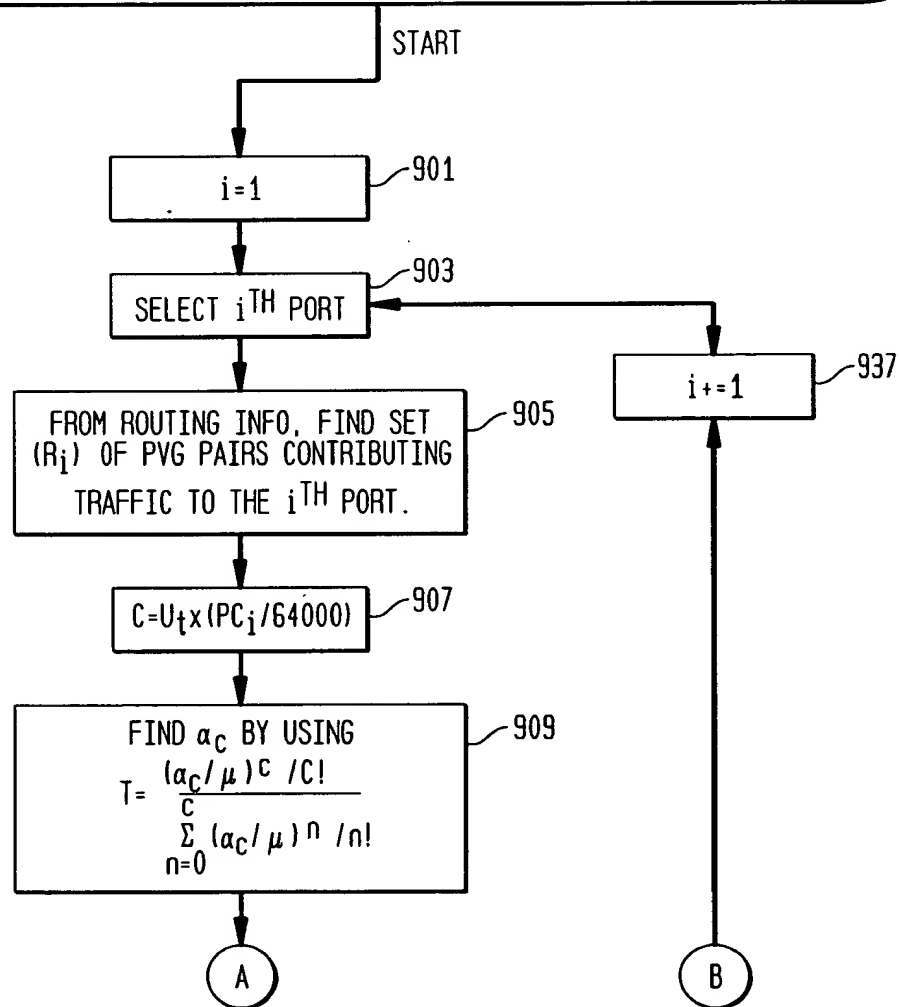
FIG. 8D



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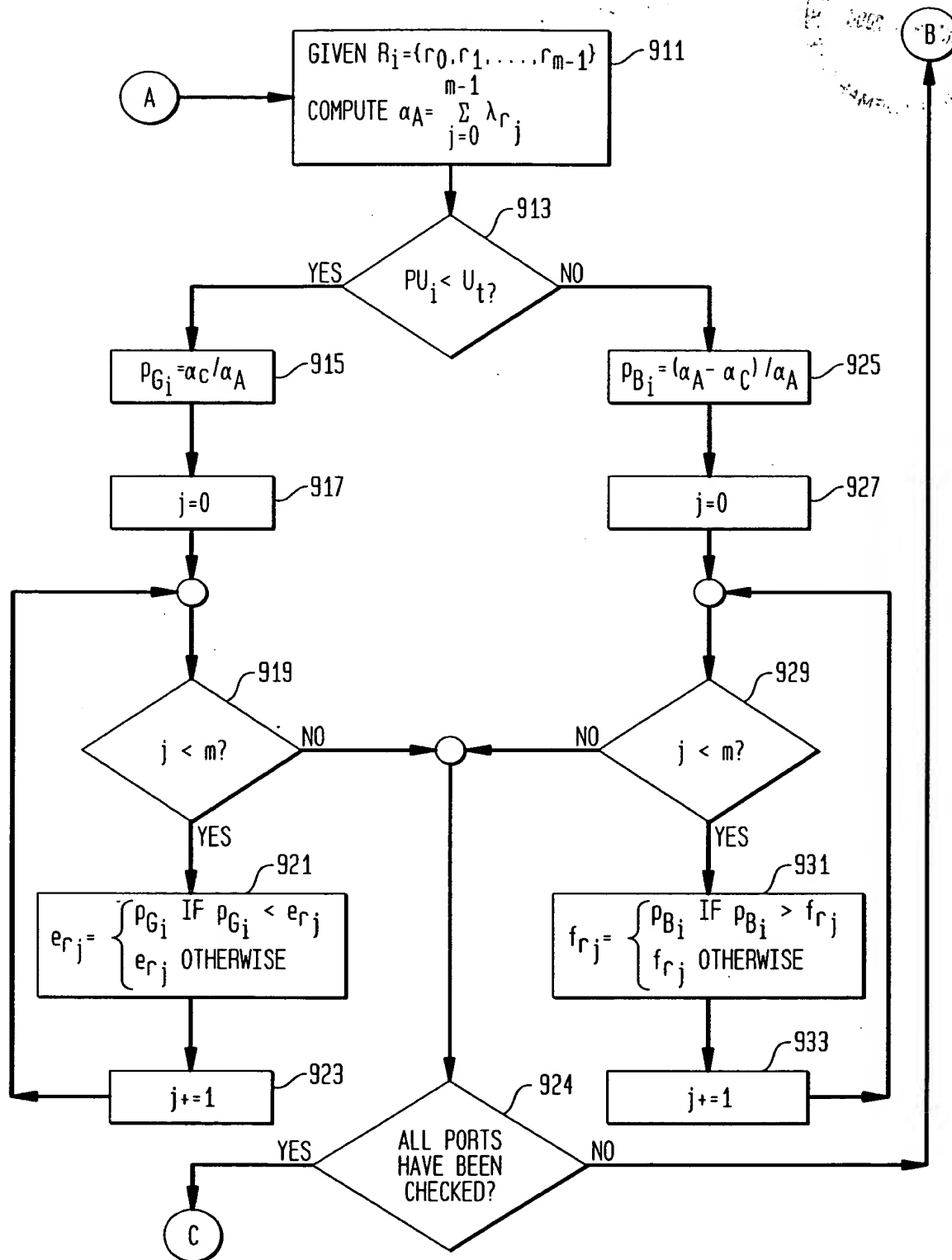
FIG. 9A

900

COMPRESSION (AVAILABILITY/UNAVAILABILITY OF RTP MEASUREMENTS) U_i = UTILIZATION OF i^{th} PORT PC_i = CAPACITY OF i^{th} PORT U_t = UTILIZATION THRESHOLD λ_k = CALL ARRIVAL RATE FOR k^{th} PVG PAIR N_k = NUMBER OF CALLS FOR WHICH BANDWIDTH IS ALLOCATED TO k^{th} PVG PAIR CCR_k = CURRENT COMPRESSION RATE ALLOCATED TO k^{th} PVG PAIR p_{B_i} = BANDWIDTH REDUCTION FACTOR DUE TO THE i^{th} PORT p_{G_i} = BANDWIDTH INCREMENTAL FACTOR DUE TO THE i^{th} PORT f_k = BANDWIDTH REDUCTION CORRECTION FACTOR ASSIGNED TO THE k^{th} PVG PAIR e_k = BANDWIDTH INCREMENTAL CORRECTION FACTOR ASSIGNED TO THE k^{th} PVG PAIR $(1/\mu)$ = AVERAGE CALL HOLDING TIME T = BLOCKING THRESHOLD

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FIG. 9B



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FIG. 9C

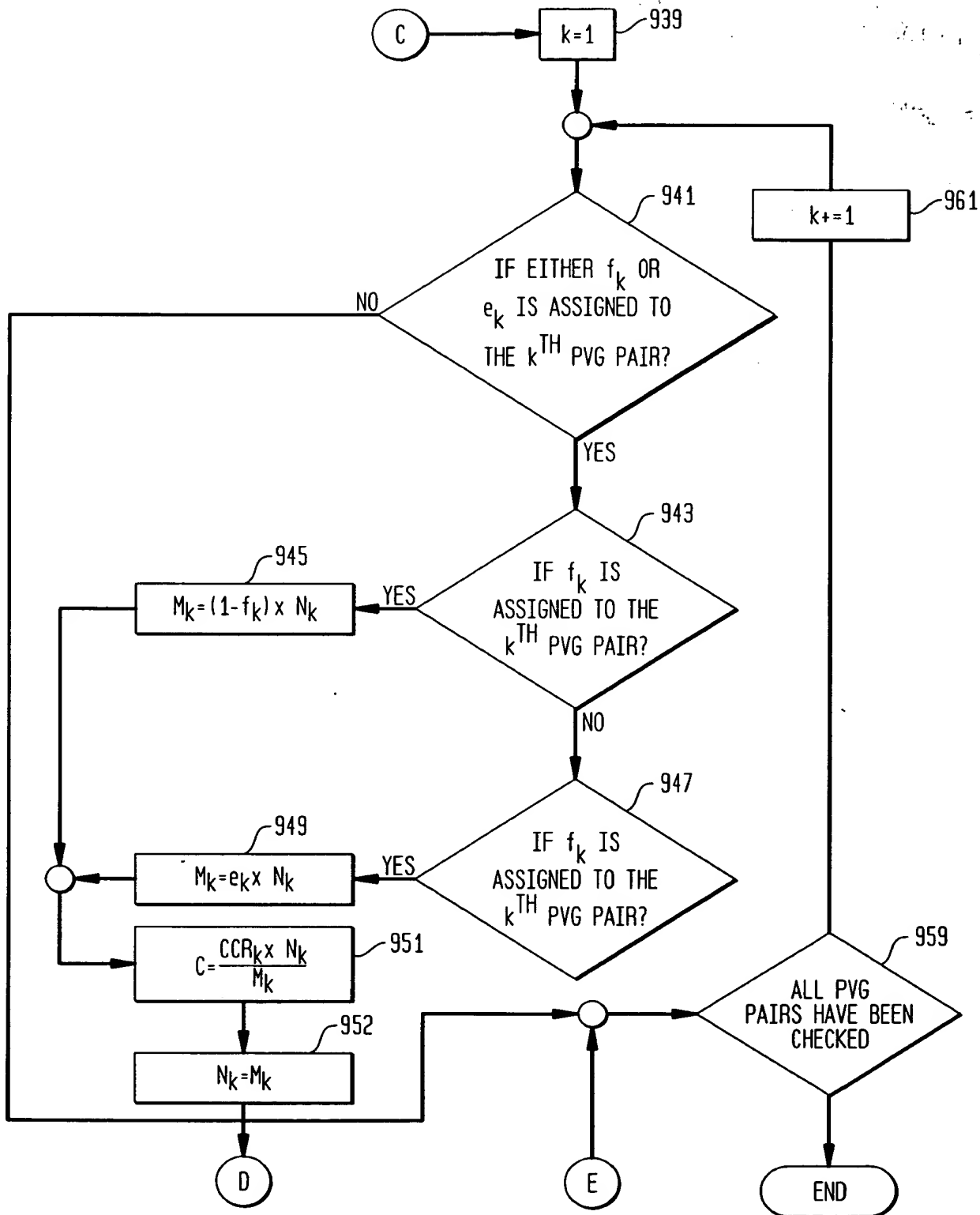


FIG. 9D

